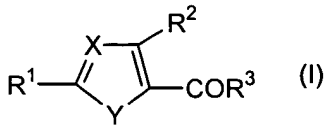
ABSTRACT

1. A cyclic compound of the formula (I) or a pharmacologically acceptable salt thereof,



(I)

wherein X is =CH−or=N−, Y is−NH−, −NR^4−, −S−, −O−, −CH=N−, −N=CH−, −N=N−, −CH=CH−, etc., R^1 is a lower alkoxy group, an amino group, a heterocyclic ring containing N atom(s), or a hydroxy group substituted by a heterocyclic ring containing N atom(s) (each of which is optionally substituted), R^2 is a lower alkylamino group which is optionally substituted by an aryl group, a lower alkoxy group which is optionally substituted by an aryl group, a lower alkoxy group substituted by an aromatic heterocyclic ring containing N atom(s), R^3 is an aryl group, a heterocyclic ring containing N atom(s), a lower alkyl group, a lower alkoxy group, a cyclo lower alkoxy group, a hydroxy group substituted by a heterocyclic ring containing N atom(s), or an amino group (each of which is optionally substituted), and R^3 and a substituent in Y may be combined to form a lactone ring.

The compound of the present invention has excellent selective PDE V inhibitory activity and therefore, is useful as a therapeutic or prophylactic drug for treating various diseases due to functional disorders on cGMP-signaling.